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(54) Title: HIGH THROUGHPUT ASSAYS FOR THE PROTEOTYTIC ACTIVITIES OF CLOSTRIDIAL NEUROTOXINS

(57) Abstract: In this application is described substrates for high-throughput assays of clostridial neurotoxin proteolytic activities. Two types of substrates are described for use in assays for the proteolytic activities of clostridial neurotoxins: (1) modified peptides or proteins that can serve as FRET substrates and (2) modified peptides or proteins that can serve as immobilized substrates. In both types a fluorescent molecules is present in the substrate, eliminating the requirement for the addition of a fluorogenic reagent. The assays described can be readily adapted for use in automated or robotic systems.